

IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace the first paragraph on page 6, commencing on line 4, with the following amended paragraph:

FIG. 1 depicts a satellite communications environment **100** within which the present invention is used. A terrestrial station **104** transmits a ground-to-satellite signal **106** (hereinafter “signal” 106) to a satellite **102** in orbit around the earth. Satellite **102** travels at an orbital velocity  $v'$  and at a radial velocity  $v(t)$  relative to terrestrial station **104**. Signal **106** experiences Doppler effects due to the relative motion between satellite **102** and terrestrial station **104**. The Doppler effect manifests as an apparent shift in the signal received by satellite **102**, including, but not limited to, frequency Doppler effects and code Doppler effects.

Please replace the second paragraph on page 6, commencing on line 11, with the following amended paragraph:

Satellite **102** represents any satellite useful in transferring communication or information signals[[ ]]. For example, satellite **102** could send and receive television signals, mobile telephone signals, or geo-location signals. Those skilled in the art will recognize that satellites are used in a wide variety of applications. Generally, only those satellites not in a geostationary orbit (such as a LEO satellite) experience Doppler effects relative to points on the Earth's surface.

Please replace the last paragraph on page 14, commencing on line 26, with the following amended paragraph:

Time pre-correction is more coarsely discretized than frequency pre-correction even though code Doppler results in a time rate of change of code timing of 20 ppm and frequency Doppler results in frequency shifts of 20 ppm as well. The quantization of time pre-correction may result in a maximum timing error of 1/16-PN chip (here 50.86 ns). This error affects



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mobile position determination (MPD) relying on round-trip delay (RTD) ~~measurements~~, measurements. These methods do not require the timing to be pre-corrected using as fine a relative step size as the frequency pre-correction where the error mechanism of MPD based on Doppler count is the primary driver on the accuracy requirements.